

Department of Revenue Administration

v.

Town of Winchester

Docket No.: 18412-00RA

ORDER

This order relates to whether the 2003 reassessment ordered by the board (“Reassessment Order”) (dated August 6, 2001) has been performed satisfactorily in accordance with its Reassessment Order and RSA 71-B:17. For the reasons that follow, and after a brief summary of the procedural history and relevant developments, the board finds the reassessment was not satisfactorily performed.

Procedural History

This action was initiated by the department of revenue administration (“DRA”) filing a petition pursuant to RSA 21-J:3, XXV on December 19, 2000. After holding a show cause hearing and after a finding that more than five years had elapsed since the last reassessment and the coefficients of dispersion (“CODs”) for the three years prior to the petition ranged from 20.46% to 23.71%, the board ordered a reassessment to be performed for tax year 2003. In December of 2002, the “Town” entered into an agreement with Nyberg Purvis & Associates, Inc. (“Nyberg”) to perform the ordered reassessment. After completion of the reassessment, and as

provided by TAX 208.06(a)(2), one of the board's RSA 71-B:14 review appraisers, Ms. Joan C. Gootee, filed a "Final Report" on June 17, 2004 which investigated the assessment equity resulting from the 2003 reassessment by performing an assessment-to-sale ratio study from a sample of sales that occurred nine months subsequent to the reassessment ("Nine Month Subsequent Study"). The Final Report raised several concerns which the board directed the Town and Nyberg to respond to. After receiving general responses from both, the board held a hearing on October 18, 2004 to elicit more specific responses, in particular from Nyberg, as to the three concerns outlined in the board's July 9, 2004 order. After receiving testimony from the Town, Nyberg and taxpayers at the October 18, 2004 hearing, the board directed Ms. Gootee to perform further investigation as to the appropriateness of the neighborhood delineations and to review the sales utilized during the reassessment. On November 12, 2004, Ms. Gootee filed a "Follow-Up Report" which, in addition to the neighborhood and sales review, investigated and reported on a subsequent manufactured home update and her observations as to the inconsistent application of view factors during the reassessment. After receiving the Follow-Up Report, the board provided all interested parties an opportunity to file comments on the Follow-Up Report.

During its deliberations in early December 2004, the board recognized the sales and assessment data for the last six months of DRA's equalization study period (April 2004 – September 2004) for Winchester (see RSA 21-J:3, XIII; and RSA 21-J:9-a) was readily available to allow a second ratio study subsequent to the reassessment to be performed to further statistically review the effectiveness of the reassessment. Consequently, the board directed Ms. Gootee to perform this additional ratio study. On December 14, 2004, Ms. Gootee's ratio study of sales nine to fifteen months subsequent to the reassessment ("Nine to Fifteen Month

Subsequent Study”) was filed with the board. A copy of the Nine to Fifteen Month Subsequent Study is appended in its entirety as Attachment A.

Standards of Review for Determining Sufficiency of Reassessment

RSA 71-B:17 provides for the board’s order for reassessment to remain in effect until the reassessment is performed “satisfactory to the board” While the statute contains no further explicit definition as to when a reassessment has been performed satisfactorily, the board, in implementing that statute, enacted TAX 208.06 which provides for a subsequent assessment-to-sale ratio study to be performed “to determine whether a statistically acceptable reassessment was performed.” As noted above, both the Final Report and the Follow-Up Report are subsequent reassessment reports as envisioned by TAX 208.06(a)(2).

Additionally, as first summarized in Town of Milford, BTLA Docket No.: 17330-97RA (July 5, 2002), p. 3-4, the board has looked to five general sources of standards and information in determining whether a reassessment was satisfactorily performed.

First, RSA 71-B:16-a provides five criteria for the board to consider before ordering a reassessment; the board has found that such criteria are also appropriate to consider in evaluating a reassessment’s performance.

Second, TAX 208.06 requires municipalities in which the board has ordered a reassessment to file periodic progress reports and for the board’s review appraisers to perform subsequent assessment-to-sale ratio studies. Thus, all evidence received during the periodic updates and subsequent reports by the board’s review appraisers are considered.

Third, the board’s reassessment order routinely states the reassessment must “comply with applicable statutes and regulations including PART 600 of the DRA’s rules on reassessment.” (e.g., Reassessment Order at p. 5.) Thus, the board considers compliance with

the DRA's 600 rules as part of its review in determining whether a reassessment is performed satisfactorily.

Fourth, when a municipality enters into a contract with a private reappraisal firm, as it did in this case, the board looks to the contract to determine whether the significant provisions have been materially complied with. In doing so, the board recognizes at the same time that it is not the enforcer or arbitrator of disputes that may arise from such a contractual relationship.

Fifth, while not officially adopted by the board, generally accepted publications and standards relating to mass appraisal practices are considered, including, but not limited to: Appraisal Standards Board, Uniform Standards of Professional Appraisal Practice, Standards Rule 6 (2000 ed.); Robert J. Gloudemans, Mass Appraisal of Real Property, (International Association of Assessing Officers (IAAO, 1999); and Appraisal Institute, The Appraisal of Real Estate, (12th ed. 2001). The board also considers the guidelines adopted last on September 5, 2003 by the Assessing Standards Board pursuant to RSA 21-J:14-b.

Specific Findings

The most indicative finding that the reassessment, as performed, did not result in satisfactory assessments is the significant disparity between the assessment equity indices (CODs and price-related differentials ("PRDs")) of the assessment-to-sale ratio studies performed by Nyberg during the reassessment, the DRA's 2003 equalization ratio study and the board's review appraiser's Nine Month Subsequent Study and the Nine to Fifteen Month Subsequent Study. The following comparative chart of those studies, and some of the strata contained in those

studies, highlights the disparity of the CODs and PRDs indicated by the ratio studies developed at the time of the reassessment and those shortly subsequent to the reassessment.¹

Nyberg Ratio Study

Date of Sales Analyzed	Type of Sales	Median Ratio	COD	PRD
4/00 – 6/03	All sales (171)	100%	4.14%	100%
4/00 – 6/03	Zone 1: rural (19)	101%	5.94%	98%
4/00 – 6/03	Zone 2: residential (22)	103%	5.61%	98%
4/00 – 6/03	Zone 3: residential S (36)	100%	2.60%	100%
4/00 – 6/03	Zone 4: agricultural (47)	99%	5.47%	100%
4/00 – 6/03	Zone 5: all commercial sales (10)	99%	2.70%	100%
4/00 – 6/03	Forest Lake (13)	102%	2.59%	100%
4/00 – 6/03	Forest Lake – front foot (8)	101%	3.30%	101%

DRA Ratio Study

Date of Sales Analyzed	Type of Sales	Median Ratio	COD	PRD
10/02 – 9/03	All qualified sales (72)	100.7%	7.06%	102%

¹ The Nyberg assessment equity data is drawn from the Winchester appraisal manual and sales survey, which are part of the board's file. The parenthetical designation of the number of sales shown above utilized in the Nyberg ratio studies is based on the sales contained in each one of the individual ratio studies by strata rather than the sales analysis contained on the preceding pages. In a number of instances the number of sales varied from the sales analysis to the ratio study formats without any explanation as to why they were not based on the identical sales. The DRA's 2003 equalization summary is contained at Addendum D of the Final Report. The "BTLA Nine Month Subsequent Study" assessment equity indices are from p.11 of the Final Report. The "BTLA Nine to Fifteen Month Subsequent Study" assessment equity indices are from the review appraiser's memorandum attached as Attachment A. The Subsequent Studies contain additional strata not summarized in this order; while considering those additional analyses, the board has summarized in this order the several which raise the most significant concerns of assessment inequity.

BTLA Nine Month Subsequent Study

Date of Sales Analyzed	Type of Sales	Median Ratio	COD	PRD
7/03 – 3/04	All valid sales (78)	101%	18.98%	105%
7/03 – 3/04	Residential land sales (14)	109%	20.78%	113%
7/03 – 3/04	All sales with improvements > 1970 (21)	86%	22.49%	104%

BTLA Nine to Fifteen Month Subsequent Study

Date of Sales Analyzed	Type of Sales	Median Ratio	COD	PRD
4/04 – 9/04	All qualified sales excluding outliers (57)	97%	22.15%	105%
4/04 – 9/04	Qualified residential improved sales (34)	93%	28.63%	109%
4/04 – 9/04	Qualified land only sales (11)	114%	20.56%	103%

The board raised concerns about the disparity of the assessment equity indices in its earlier orders and provided an opportunity for the Town and Nyberg to respond, both in writing and at the subsequent October 18, 2004 hearing. Nyberg proposed the quick deterioration in assessment equity indices is due to the “highly volatile market” that currently exists in the Town. Nyberg further stated that DRA officials indicated “it is virtually impossible for statistics to hold for a year or more in such a market as previously described.” (Nyberg August 2, 2004 letter, p. 2). At the October 18, 2004 hearing, Nyberg also submitted an exhibit to support its contention that reassessments that have occurred in New Hampshire in recent years (1999 –

2002) have, in many cases, had failing statistics within one to several years after the reassessment.

As the board noted in its September 1, 2004 order, it does not agree with the argument that the “highly volatile market” is the reason for the unfavorable assessment equity indices identified in the Nine Month Subsequent Study contained in the Final Report. As noted earlier, both the board’s review appraiser and Nyberg, in adjusting the sales utilized both three years prior to the reassessment date and nine months subsequent, used a 3% to 4% annual time adjustment. Based on the board’s broad experience in property tax, eminent domain and reassessment cases during that time period, such market appreciation is modest at best compared to many areas of the state and cannot be described as highly volatile. Further, Nyberg’s contention that the current highly volatile market in Winchester caused the deterioration in the nine months subsequent to the reassessment does not make sense with the purported tight and predictable market as indicated by the low CODs in the Nyberg ratio studies during the time of the reassessment. Said another way, the board finds it hard to believe the highly volatile market began the moment Nyberg left the Town. If indeed there is a highly volatile market, it would likely have been exhibited in the three years of sales analyzed by Nyberg and would not have resulted in such unusually tight CODs of 2% to 5%.

Concerned with the disparities noted above, the board had its review appraiser analyze the next six months of sales that were now available to determine if the poor COD of 18.98% found in the Nine Month Subsequent Study was an anomaly or not. The results of the Nine to Fifteen Month Subsequent Study indicates it was not, even if one accounts for the fact that market appreciation (time adjusting) becomes more problematic the more distant in time the

sample is from the assessment date. The CODs overall, and by strata, indicate a continuing deterioration of assessment equity.

Consequently, the board concludes that the tight CODs and PRDs generated by the Nyberg ratio studies at the time of the reassessment are artificial and misleading, are likely the result of selective reappraisal and the high CODs contained in two “Subsequent Studies” are not primarily the result of a “highly volatile market,” but rather the result of the reassessment models not being truly market calibrated.

The IAAO defines selective reappraisal as “[t]he practice of selectively changing values for some properties, namely sold properties, but not others.” International Association of Assessing Officers (“IAAO”), Mass Appraisal of Real Property, p. 397 (1999). IAAO further notes:

“The reliability of sales ratio statistics depends on unsold parcels being appraised in the same manner as sold properties. Selective reappraisal of sold parcels distorts sales ratio results, possibly rendering them useless. Equally important, selective reappraisal of sold parcels, (‘sales chasing’) is a serious violation of basic appraisal uniformity and is highly unprofessional.” Id. at 315.

“The objective of ratio studies is to determine appraisal performance for the population of properties, that is, both sold and unsold parcels. As long as standardized schedules and formulas are used in the valuation process, there is little reason to expect any significant difference in appraisal performance between sold and unsold parcels. If, however, sold parcels are selectively reappraised based on their sales prices or other criterion, the appraised values used in ratio studies will not be representative and ratio statistics will be distorted. In all probability, calculated measures of central tendency will be artificially high and measures of dispersion artificially low. *In fact, very low CODs can indicate ‘sales chasing.’*” Id. at 309 – 310. (Italics added).

Based on the entire body of evidence submitted, discussed in greater detail in the following paragraphs, the board concludes the low CODs of 2% to 5% found during the

reassessment are more likely the result of selective reappraisal rather than evidence of a tight and consistent market in Winchester and a reflection of such in assessments based on consistent and logical assessment calibration. (See id. at 18 – 20). Based on the board’s experience and the inherent market variability in a small, generally rural town such as Winchester (see acceptable COD and PRD guidelines for rural and heterogeneous communities contained in the IAAO performance standards at p. 7 in the Final Report), the board would expect acceptable CODs during the time of a reassessment to be in the 10% to 15% range. The fact they were significantly lower (2% - 5%) at the time of the reassessment and then significantly higher immediately subsequent to the reassessment indicates the assessments of the sold properties (known at the time of the reassessment) were tailored to be very similar to the sales prices while properties that sold later (as exemplified by the two Subsequent Studies) had notably more variable market equity (overall COD of 18.98% to 22.15%). “Obtaining results that are consistently worse in ... [a subsequent ratio] study indicates selective appraisal of sold properties.” Id. at 310.

We find the juxtaposition of the Nyberg ratio studies and those in the two Subsequent Studies is a more meaningful comparison to test for selective appraisal than the comparison of the two overlapping time period ratio studies (July 2003 – March 2004 and November 2003 – March 2004) discussed at page 4 of the Final Report. Thus, we disagree with the initial finding by the review appraiser (not borne out by the Subsequent Studies) “that no selective reappraisal had occurred.”

The board also received inconsistent evidence and observations as to whether the neighborhood delineations at the time of the reassessment are reflective of the market. The Follow-Up Report noted several areas that had been designated as separate neighborhoods

without apparent differences, while the December 9, 2004 Nyberg letter states there are topographical or view differences to justify the neighborhood distinction. The Follow-Up Report and Nyberg letter present different perspectives as to how to value residential properties in commercial neighborhoods or zones and as to whether the view factors were consistently applied. Without definitively ruling as to whether neighborhoods and view factors were properly determined and applied, the Subsequent Studies' high CODs suggest that the assessment models were not properly calibrated including potentially the neighborhood delineation and view factor application.

These are but two of the several mass appraisal factors that can be adjusted for sold properties to create an artificial indication of excellent assessment equity. Other factors include such things as the grade (quality) and condition notation of improvements. While no specific investigation was performed to determine if such factors were consistently applied in sold and unsold properties, the board notes there is some circumstantial evidence of improvement factor tailoring as indicated by the extremely low COD of 2.60% in the "residential S zone" where all the sales are comprised of improved properties. Of all the strata contained in the Nyberg ratio studies, it has the lowest COD and it is the only strata with all improved properties. Other strata analyzed in the Nyberg ratio studies are comprised of land only sales or a mix of land only and land and building sales. Due to the presence of land only sales in these other strata, there is inherently less ability to tailor the assessments by adjusting the improvement factors than what existed in the "residential S zone."

The indicated overall CODs of 18.98% and 22.15% in the two Subsequent Studies are certainly higher than what one would expect from a good reassessment as indicated by the IAAO Performance Standards and the Assessing Standards Board Guidelines which has 20% as the

maximum acceptable COD. Also, because the two Subsequent Studies' CODs immediately following the reassessment are as high or nearly as high as the 22% - 24% COD range for the three years just prior to the DRA petition to the board, it is difficult to conclude the reassessment has produced any significantly better assessment equity. Alone, the Subsequent Studies' high CODs are strong evidence the reassessment was not performed satisfactorily.

Additionally, the Nine Month Subsequent Study raised questions as to the disparate median ratios and high CODs of the land only sales strata and for sales with improvements built since 1970. None of these issues were responded to by the Town or Nyberg, either in writing or at the October 18, 2004 hearing. The inequity of these two strata also indicates the reassessment models were not adequately calibrated.

Further, the Follow-Up Report noted that subsequent to the reassessment the base values for manufactured homes on their own land have been changed, while those on rented sites have not. The Follow-Up Report indicates that no accompanying documentation was available to support this change. The board finds it is unusual that both after the board's written inquiry (Order of July 9, 2004) as to the Final Report's indicated assessment equity concerns and a hearing on that matter, neither the Town nor Nyberg apprised the board of this subsequent revision (apparently for tax year 2004). The only documentation the board has been able to identify that relates to manufactured homes is contained on page 12 of the appraisal manual which establishes different base rates for single-wide or double-wide units but no differentiation for being on owned or leased land. Nyberg, in its December 9, 2004 letter, offers to provide "the sales used in this analysis" but did not provide the analysis itself as part of its response. As the Nine To Fifteen Month Subsequent Study indicates, the 2004 manufactured housing update

negligibly improved the assessment equity of the overall manufactured housing strata from a 2003 COD of 24.85% to 24.37% and the 2003 PRD from 117% to 110%.

Last, a review of the assessment-record cards supplied in the sales survey and the testimony at the October 18, 2004 hearing indicates the assessment-record cards contain no notes relative to adjustments made to the land or building components. While testimony was presented that many of the “condition factors” on the land related to a view from the property,² there was no notation as to that fact or any additional or offsetting factors that may affect the overall condition factor. Rev 603.14(c)(3) requires that any coding (or adjustments) utilized on the assessment-record cards needs to be clearly explained in writing as to the basis or meaning of such adjustment or code. In addition to compliance with the DRA’s rules, it is common appraisal practice and just common sense, be it mass appraisal or fee appraisal, that any significant adjustments made to arrive at the value of a property at least be noted so the basis for the appraiser making such an adjustment is known. See “USPAP” Standards Rule 6-2 (2004 ed.) (In a mass appraisal process, the appraiser must identify the characteristics of a property that are relevant to its valuation.)

In conclusion, the board deliberated whether a finding of selective reassessment was essential to our determination the reassessment was unsatisfactorily performed. We concluded indeed it was not. The unacceptable assessment indices, primarily the high CODs, immediately subsequent to the reassessment, are, on their face alone, enough for the board to conclude the reassessment was unsatisfactory. However, given the evidence of unrealistically low CODs at the time of the reassessment, we have concluded their import cannot be ignored. By analogy, just as a doctor can successfully recognize and treat the symptoms of a common disease without

² The appraisal manual contains a discussion of three ranges of view factors (p. 24), but no analysis or calculations of the derivation (other than noting three sales with views occurred) of the view factors was provided.

knowing its cause, the future prevention of the disease is facilitated by identifying what caused it. As previously noted, low CODs calculated from sales known and analyzed during the reassessment followed by high unacceptable CODs of sales immediately following the reassessment, indicates the assessment model calibrations were tailored to fit the sample of sales being analyzed rather than being calibrated to truly reflect the market. The use of reiterative sales ratio studies as the primary tool to calibrate assessment models on the front end can lead to continual modification (selective appraisal) of the various assessment factors of the sold properties (land base rates, neighborhood delineations, land adjustment factors, building base rates, building grade and condition designations, etc.) that may result in low CODs for the analyzed sample, but not necessarily the population as a whole. Rather, the assessment models should be extracted and constructed from market data (land base rates and major land adjustments from land sales, building replacement costs from national and local construction costs, depreciation rates schedules drawn or checked from local sales of improved property, etc.), applied consistently with good appraisal judgment and then tested by sales ratio studies. “The final step in the mass appraisal process is a sales ratio study designed to measure the overall quality of appraisals. Values generated by mass appraisal models are compared with a representative sample of sales, preferably including some sales not used in calibration.”

IAAO, supra at 21.

Also, the board does not arrive at this ruling lightly. We are very cognizant of its implications and impact, financially and otherwise, on the Town. However, to conclude the reassessment was satisfactorily completed, would be to ignore the significance of the wide variation in assessment equity indices noted above in addition to the other deficiencies discussed

in the Final and Follow-Up Reports and the lack of any constructive response as to how those reports' conclusions are incorrect or, if correct, what remedial action is planned.

Thus, in accordance with TAX 208.06(a)(4), when “the Board concludes the Municipality ... has not completed a statistically acceptable reassessment, the Board shall hold a hearing to determine what further orders to issue or what further steps to take.”³ The board, therefore, schedules a hearing for February 7, 2004 at 9:00 a.m. in Courtroom A at the United States District Court, Warren B. Rudman U.S. Courthouse, 55 Pleasant Street, Concord, New Hampshire. (Directions enclosed.) At the hearing, the board will receive testimony from the Town's assessing officials/selectmen and representatives of the DRA as to what appropriate prospective remedies might result in improved and acceptable assessment equity within the Town.

SO ORDERED.

BOARD OF TAX AND LAND APPEALS

Paul B. Franklin, Chairman

Michele E. LeBrun, Member

Douglas S. Ricard, Member

Albert F. Shamash, Esq., Member

³ See also RSA 71-B:17 “If the assessment or reassessment is not made in conformity with the order, except as provided above, or if it is not satisfactory to the board, the board may certify the order to the commissioner of revenue administration who shall cause the reappraisal to be made by his department or by professional appraisers employed for the purpose.” (Emphasis added.)

Certification

I hereby certify a copy of the foregoing Order has this date been mailed, postage prepaid, to: Mark Bennett, Esq., State of New Hampshire, Department of Revenue Administration, 57 Regional Drive, Concord, New Hampshire 03302, counsel for the Petitioner; Chairman, Board of Selectmen, Town of Winchester, 1 Richmond Road, Winchester, New Hampshire 03470; Leonard Nyberg, Jr., Nyberg Purvis & Associates, 125 Savageville Road, Lisbon, New Hampshire 03585, contract assessor for the Town; and the following Interested Parties: Arthur Alexander, 384 Back Ashuelot Road, Winchester, New Hampshire 03470; Marcia Ammann, 32 Michigan Street, Winchester, New Hampshire 03470; Blaise J. Barstow, 100 Elm Street, Winchester, New Hampshire 03470; Broderick Bashaw, 17 Fenton Hill Road, Ashuelot, New Hampshire 03441; Jacqueline L. Beaman, 463 Old Spofford Road, Winchester, New Hampshire 03470; Scott Bradley, #30 Old Rixford Road, Winchester, New Hampshire 03470; Cary Broadbit, 34 Very Brook, Winchester, New Hampshire 03470; Bruce Caron, 126 South Parrish Road, Winchester, New Hampshire 03470; Myla Carpenter, 66 Rabbit Hollow Road, Winchester, New Hampshire 03470; Dan Carr, Box 111, 25 Main Street, Ashuelot, New Hampshire 03441; George E. Chenier, 507 Forest Lake Road, Winchester, New Hampshire 03470; Erika Cohen, The Keene Sentinel, 60 West Street, Post Office Box 546, Keene, New Hampshire 03431; Margaret Conant, 367 Keene Road, Winchester, New Hampshire 03470; Sandy Cook, 811 Manning Hill Road, Winchester, New Hampshire 03470; Phillip Earley, 4A Chapel, Winchester, New Hampshire 03470; John & Chris Frado, 259 Bolton Road, Winchester, New Hampshire 03470; Christine B. Hadley, 60 Rabbit Hollow Road, Winchester, New Hampshire 03470; Elena Heiden, Post Office Box 93, Winchester, New Hampshire 03470; Vicki Hooper, 15 Smith Court, Winchester, New Hampshire 03470; Billie-Jo Knoll, 248 Back Ashuelot Road, Winchester, New Hampshire 03470; Robert Merchant, 242 Bolton Road, Winchester, New Hampshire 03470; John Miner, 71 Broad Brook Road, Ashuelot, New Hampshire 03441; Edward Naile, 61 Tubbs Hill Road, Deering, New Hampshire 03244; Whip Newell, 3 Old Chesterfield Road, Winchester, New Hampshire 03470; Gary R. O'Neal, 400 Schofield Mountain Road, Ashuelot, New Hampshire 03441; Brian Oates, 24 Avery Circle, Winchester, New Hampshire 03470; Henry Parkhurst, State Representative, District #4, One Parkhurst Place, Winchester, New Hampshire 03470; Guy Petell, State of New Hampshire, Department of Revenue Administration, 57 Regional Drive, Concord, New Hampshire 03301; Rep. Stanely S. Plifka, Jr., Post Office Box 459, Scofield Road, Winchester, New Hampshire 03470; Alden Powers, 636 Warwick Road, Winchester, New Hampshire 03470; Irene Pratt, State Representative, District #4, 66 Clark Road, Winchester, New Hampshire 03470; Richard Pratt, 222 Richmond Road, Winchester, New Hampshire 03470; Richard and Rebecca Pratt, 89 Old Mountain Turnpike Road, Winchester, New Hampshire 03470; Jill Rokes, 70 Acorn Drive, Winchester, New Hampshire 03470; Paul Sepe, PMB 242, 75 Main Street, Suite 4, Plymouth, New Hampshire 03264; Jane Severance, 84 Warwick Road, Winchester, New Hampshire 03470; William Struthers, 63 Ashuelot Street, Winchester, New Hampshire 03470; Brian Thompson, 13 North Winchester Street, Winchester, New Hampshire 03470; and Alan Willard, 35 Woodward Avenue, Winchester, New Hampshire 03470.

Date: January 7, 2005

Anne M. Stelmach, Deputy Clerk